

Diwu *et al.*
Serial No. 10/713,670

Docket No. MP0067.1CIP

REMARKS

The Claimed Invention

The claimed invention is directed to xanthene derivative dye compounds that include additional fused rings and precursors useful for synthesizing such dye compounds. The compounds may be present in a form containing a chemical reactive group, or attached to a biological compound or present as an un-reactive dye compound. These dye compounds, in their various forms, are used to stain or label a biological sample wherein the fluorescent compounds provide a detectable signal that identifies the biological sample.

The Pending Claims

Prior to entry of the attached amendments, Claims 1-30 are pending. Claims 1-10 are directed to precursor compounds that are useful for synthesizing dihydrodihydroxyquinoline compounds of the invention. Claims 11-14 are directed to dihydrodihydroxyquinoline compounds that are synthesized by the combination of the precursor compounds from Claims 1-10 and an additional precursor. Claims 15-20 are directed to derivatives of xanthene or oxazine compounds synthesized using the precursor compounds from Claims 1-10. Claim 21 is a derivative of seminaphthorhodafluor synthesized using the precursor compounds of Claims 1-10. Claims 22-30 are directed to rhodamine derivatives synthesized using precursor compounds of Claims 1-10.

The Office Action

Claims 1-30 are restricted.

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RESPONSE TO THE RESTRICTION REQUIREMENT

In the response that follows, the Examiner's Election/Restriction of the Applicant's claimed invention is provided in full text, as identified by indented small bold print, followed by the Applicants response.

35 U.S.C. 121 Restriction

- I. **Claims 1 to 10, drawn to compounds of the formula shown in claim 1, classified in class 546, subclass 79+.**
- II. **Claims 11 to 14, drawn to compounds of the formula shown in claim 11, classified in class 546, subclass 61+.**
- III. **Claims 15 to 20, drawn to compounds of the formula shown in claim 15, classified in class 544, subclass 99+.**
- IV. **Claim 21, drawn to compounds of the formula shown in claim 21, classified in classes 544 and 546, various subclasses.**
- V. **Claims 22 to 30, drawn to compounds of the formula shown in claim 22, classified in class 546, subclass 33+.**

Applicants respectfully traverse the above restriction requirement and request reconsideration. As required by CFR 1.143, Applicants provisionally elect Group I as drawn to compounds of the formula shown in Claim 1.

The inventions are distinct, each from the other because of the following reasons:

The compounds of groups I to V are independent and distinct from one another because of their structural differences. The compounds contain a different number of fused rings.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and the search required for one of the groups is not required for the other groups, restriction for examination purposes as indicated is proper. In addition, a search of all of the claims would impose a serious burden on the examiner and the patent office resources since separate patent, literature and computer searches would have to be done.

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Applicants traverse the restriction requirement and respectfully request that the Examiner reconsider rejoining the compound claims (Groups I-III). Group I, II and III are related as intermediates used to synthesize the compound of groups IV and V. The multiple fused rings of the compounds in group I confer novelty, when present alone (Group I), or individually as part of a larger compound structure (Groups II, III and IV), or as part of a symmetrical compound (Group V). Therefore, the compounds of Group I are present within all of the compounds of the present invention. Therefore, applicants respectfully assert that a search based on the fused rings of Group I compounds will encompass all of the compounds of the present invention.

While the compounds of the present invention (Groups I-V) may contain a different number of fused rings, the point of novelty remains constant with three to six fused rings of the Group I compounds. Applicants respectfully assert that the compounds of Groups I-V are not patentably distinct and should be rejoined as all the compounds comprise the fused rings of the Group I compounds.

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CONCLUSION

In view of the above remarks, it is submitted that this application is now ready for allowance. Early notice to this effect is solicited. If, in the opinion of the Examiner, a telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersigned at (541) 335-0203.

Respectfully submitted,

Date: August 24, 2005

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